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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,118	09/21/2001	Steven R. Pearson	BEA920010027US1	5751
49056	7590	08/10/2006	EXAMINER	
LIEBERMAN & BRANDSDORFER, LLC 802 STILL CREEK LANE GAIITHERSBURG, MD 20878			FILIPCZYK, MARCIN R	
		ART UNIT	PAPER NUMBER	
		2163		

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/960,118	PEARSON, STEVEN R.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Marc R. Filipczyk	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on RCE of 6/30/06 and amend. 5/31/06.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-14 is/are rejected.

7) Claim(s) 1-5 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 02 September 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## **DETAILED ACTION**

This Action is responsive to Applicant's RCE filed June 30, 2006 and amendment submitted on May 31, 2006.

**To expedite the process of examination Examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. amendments, 35 U.S.C. 112, objections and the like) set forth by the Examiner that Applicants provide and link to the most specific page and line numbers of the disclosure where the best support is found (see 35 U.S.C. 132).**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 30, 2006 has been entered.

Claims 1-14 are pending.

### ***Claim Objections***

Claims 1-5 are objected to because of the following informalities: Regarding claim 1, compiling "said" single output should be replaced with "a" to overcome inconsistencies.

Claims 2-5 depend from claim 1 and are therefore objected to on the same basis.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The subject matter of “next data item is solely on comparison between status identifiers” was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

Claims 2-5 depend from claim 1 and are therefore rejected on the same basis.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 6 and 9, claim 1 being exemplary, the step of “merging” is indefinite. It is not clear what data is merged since the claim specifically refers to one data item, and at least two data items are needed for a traditional merge. Examiner suggests replacing merging with a definitive term used in the art such as copying without adding new subject

matter. Second, the segment “next data item is solely on comparison between status identifiers” is indefinite. It is not clear how a data item can be compared solely based on status identifiers unless every data item is assigned a unique identifier; note, Applicants only assign identifier to an input stream. Third, the phrase “exclusive copying” is indefinite. It is not clear what the metes and bounds of exclusive copying are in the context of the claim. Last, the preambles comprising “at least three input streams” are indefinite. The body of the claims only utilize two input streams.

Claims 2-5, 7, 8 and 10-14 depend from claims 1, 6 and 9 respectively, thus they are rejected on the same basis.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Or,

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 6 and 9 are rejected under 35 U.S.C. 102(b) as best as Examiner is able to ascertain as being anticipated by Smith (U.S. Patent No. 5,832,068).**

Regarding claims 1, 6 and 9, Smith discloses a method, program and data structure for creating a single output data stream by merging data items from two or more input streams

comprising: (merging being equated with organizing data, see fig. 1, items 10 and 12 col. 1, lines 19-24)

*(Note: Smith compares unique record identifiers, if a match occurs indicating it's a duplicate, that record is discarded and not processed, equivalent to Applicant's merging step of simply merging two streams into one, just like Smith merges two input streams into one by discarding the duplicate)*

processing data items; (fig. 2)

assigning a status identifier to each input stream, said identifier reflecting a state of an input stream; (fig. 3, 104)

comparing a status identifier of a first input stream with a status identifier of a second input stream; (fig. 3, 106)

compiling data streams; (fig. 2)

identifying a data item being processed from a second input stream as being a duplicate of a previously processed data item from a first input stream based on said assigned duplicate data item; (fig. 3, items 106 and 108)

processing data items from said second input stream responsive to said assigned duplicate status identifier (col. 8, lines 47-51), wherein the step of processing said value merges said input streams into a single output stream and avoids exhausting one of said input streams when a quantity of said input streams is an odd number greater than one (col. 8, lines 51 and 52, fig. 4, items 208, 210 and 212).

*(Note: record index is equivalent to nodes, see fig. 2)*

*(To expedite the processing of the examination, Examiner interprets the step of "a quantity of said input streams is an odd number greater than one" as two input streams)*

**Claims 1, 5, 6, 9 and 13 are rejected under 35 U.S.C. 102(a) as best as Examiner is able to ascertain as being anticipated by Applicant's Admitted Prior Art (AAPA), Applicant's Disclosure.**

Regarding claims 1, 6 and 9, Smith discloses a method, program and data structure for merging data items from two or more input streams comprising: (fig. 5A and page 1, par. 5, lines 2 and 3)

assigning a status identifier to each input stream, said identifier reflecting a state of an input stream; (fig. 5A, item 500 and see nodes)

processing data items; (fig. 5A)

comparing a status identifier of a first input stream with a status identifier of a second input stream; (fig. 5A, nodes and page 1, par. 5, lines 7 and 8)

compiling data streams; (fig. 5A)

identifying a data item being processed from a second input stream as being a duplicate of a previously processed data item from a first input stream based on said assigned duplicate data item; (fig. 5A, nodes and page 1, par. 6, lines 3-5, *duplicate*)

processing data items form said second input stream responsive to said assigned duplicate status identifier (page 1, par. 5, lines 8-11 and par 6, line 4), wherein the step of processing said value merges said input streams into a single output stream and avoids exhausting one of said

input streams when a quantity of said input streams is an odd number greater than one (fig. 5A and page 1, par. 5, lines 2 and 3 and 10-11).

*(Note: AAPA teaches any number of input streams represented by the letter N)*

AAPA further teaches each node of the selection tree comprises an identifier of one of the input streams, and a reference to a data item being processed from that one of the input streams (fig. 5A, item 500 and nodes)

Regarding claims 5 and 13, AAPA discloses the method is a replacement selection method using a loser oriented selection tree (fig. 5 and page 1, paragraphs 5 and 6).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2-4, 7, 8, 10-12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (U.S. Patent No. 5,832,068) in view of AAPA.**

Regarding claims 2-4, 7, 8, 10-12 and 14, Smith discloses all of the claimed subject matter as discussed above including a status identifier corresponding to duplicate data item; (fig. 3, items 106 and 108, Smith), but does not expressly teach a value corresponding to “empty”, “duplicate”, “merging” or “done”. Examiner states that assigning value identifiers for specific

comparisons is a common practice in computer programming. For instance, AAPA teaches an ordered merging replacement selection wherein each node of a tree stores information about a “loser” of a prior sort key comparison among its children. AAPA further teaches the status identifier has a value corresponding to duplicate keys (p.1, par. 6, lines 6 and 7; *-1, 0, 1 where 0 is done or a duplicate*).

Hence, it would have been obvious to a person of ordinary skill in the art having Smith’s indicator along with AAPA at the time the invention was made to modify Smith’s indicator in view of AAPA so that the unique integer values would indicate a specific task (e.g. value two for merging) because Smith’s data record exclusion indicator includes a generated unique data record identifier (col. 3, lines 27-29, Smith) and AAPA teaches values corresponding to comparisons, including duplicate keys (page 1, par. 6, lines 5-7, AAPA), thus the modification would be simple having both arts at hand. One would have been motivated to combine Smith and AAPA to process data faster and more efficiently.

#### *Response to Arguments*

Applicant’s arguments filed May 31, 2006 have been fully considered but they are not persuasive. The arguments and responses are listed below.

/  
On pages 7 and 8 of the 5/31/06 response, Applicant requests that by amending claims all 35 U.S.C. 112, second paragraph rejections should be withdrawn.

Examiner disagrees. Applicant’s amendment did not overcome all the indefiniteness issues previously raised, for details please see rejection above. Regarding the limitation, “a

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quantity of said input streams is an odd number greater than one”, it remains indefinite. The body of the claims recites and teaches two input streams being compared, not three input streams as misdirected by the preamble in all independent claims. Regarding the term “merging” and its equivalents, please refer to the rejection.

On pages 10 and 11 of the 5/31/06 response regarding Smith, Applicant argues that, “the process of comparing data records with a data record index of Smith is not equivalent to comparing a data record with the output stream of Applicant.

Examiner disagrees. It appears that Applicants compare two input streams and not a data record with an output stream, as stated by the Applicant. Both systems, the Applicant’s instant case and Smith compare values from two different input streams. It is noted that the features upon which applicant relies (i.e., comparing a data record with the output stream) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On page 11 of the 5/31/06 response regarding AAPA, Applicant argues that AAPA does not manage an odd number of three or greater of input streams.

Examiner disagrees. The argued feature is not clearly claimed, further, AAPA generally permits merging any number of input streams (see page 1, par. 5, lines 10-11, AAPA), any number including both odd and even number of input streams. It is further noted, that Applicant’s claims only teach merging two input streams.

On pages 12-14 of the 5/31/06 response, Applicant argues that prior art (Smith in view of AAPA) do not teach four integer options.

Examiner disagrees. As stated in previous Office Actions, Smith and AAPA teach the status identifier has a value corresponding to empty, duplicate, merging and done (p.1, par. 6, lines 6 and 7; *-1,0,1 where 0 is done or a duplicate*, AAPA). **Note, it is a common practice in computer programming to assign value identifiers for specific tasks.** According to the claims and specification, each value corresponds to a unique identifier, and **it is notoriously well known in computer programming to assign unique identifiers for empty, duplicate, merging, done, equal, etc.** In addition, both systems, Smith and AAPA teach merging data by finding duplicates, hence are in the same field. For more information please see rejection.

With respect to all the pending claims 1-14, Examiner respectfully traverses Applicants assertion based on the discussion and rejection above.

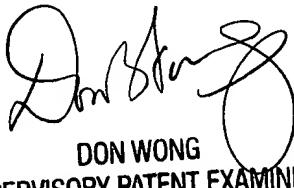
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc R. Filipczyk whose telephone number is (571) 272-4019. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MF  
August 4, 2006



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